

Serial No. 09/881,254

Please delete claims 17-24 without prejudice or disclaimer.

STATUS OF CLAIMS:

By the above amendment claims 25 and 26 have been added. Claims 17-24 have been deleted as they are directed to a non-elected invention. Accordingly, claims 1-16, 25 and 26 are pending herein.

A separate sheet entitled "Version with Markings to Show Changes Made" is provided to illustrate the addition and deletion of claims.

Support for a trench MOSFET transistor device having a plurality of source regions shorted to one another can be found throughout the present specification. See, e.g., Fig. 6A, Fig. 12 D and paragraph [0045].

REMARKS

A. Rejection of Claims 1-4, 6-8 and 10-16 under 35 U.S.C. 103(a)

Claims 1-4, 6-8 and 10-16 are rejected under 35 U.S.C. 103(a) as being obvious over Mogi et al. (U.S. Patent No. 4,250,519) in view of Vinson (U.S. Patent No. 4,116,720).

Claims 1 and 14, the only independent claims presently under rejection, read as follows:

1. A trench MOSFET transistor device comprising:
 - a drain region of a first conductivity type;
 - a body region of a second conductivity type provided over said drain region, said drain region and said body region forming a first junction;
 - a source region of said first conductivity type provided over said body region, said source region and said body region forming a second junction;
 - source metal disposed on an upper surface of said source region;
 - a trench extending through said source region, through said body region and into said drain region; and
 - a gate region comprising an insulating layer lining at least a portion of said trench and a conductive region within said trench adjacent said insulating layer,

wherein (a) said body region is separated from said source metal, and (b) a doping profile along a line normal to upper and lower surfaces of said device is such that, within said body region and within at least a portion of said source and drain regions, the doping profile on one side of a centerplane of the body region is symmetric with the doping profile on an opposite side of the centerplane.